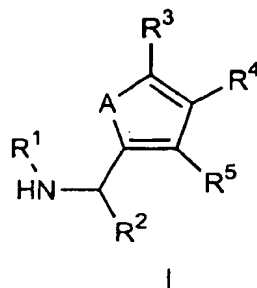


WHAT IS CLAIMED IS:

1. A compound corresponding to formula (I), or a pharmaceutically acceptable salt thereof,



wherein

A represents O or S;

R¹ represents aryl, heterocyclyl, -(C₁₋₆-alkyl)-aryl or -(C₁₋₆-alkyl)-heterocyclyl;

R² represents -C(=O)R⁶ or C₃₋₈-cycloalkyl;

R³, R⁴ and R⁵ each independently represent H, F, Cl, Br, I, CN, OR⁷, SR⁸, NO₂, C₁₋₁₂-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl, -(C₁₋₆-alkyl)-aryl, heterocyclyl, -(C₁₋₆-alkyl)-heterocyclyl, -(CH₂)_m-O-(CH₂)_n-R⁹ wherein m = 1, 2, 3 or 4 and n = 0, 1, 2, 3 or 4, -(CH₂)_p-S_q-(CH₂)_r-R¹⁰ wherein p = 1, 2, 3 or 4, q = 1 or 2 and r = 0, 1, 2, 3 or 4, -(CH₂)_s-C(=O)OR¹¹ wherein s = 0, 1, 2, 3 or 4, -C(=O)R¹² or -C(=S)R¹³;

R⁶ represents aryl, heterocyclyl, -(C₁₋₆-alkyl)-aryl or -(C₁₋₆-alkyl)-heterocyclyl;

R⁷ and R⁸ each independently represent H, C₁₋₆-alkyl or C₃₋₈-cycloalkyl;

R⁹ and R¹⁰ each independently represent H, C₁₋₆-alkyl, C₃₋₈-cycloalkyl, aryl, heterocyclyl or -C(=O)R¹⁴;

R¹¹ represents H, C₁₋₆-alkyl or C₃₋₈-cycloalkyl;

R¹² and R¹³ each independently represent C₁₋₆-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl, -(C₁₋₆-alkyl)-aryl, heterocyclyl, -(C₁₋₆-alkyl)-heterocyclyl or -NR¹⁵R¹⁶;

R¹⁴ represents C₁₋₆-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl or -(C₁₋₆-alkyl)-aryl; and

R¹⁵ and R¹⁶ each independently represent H, C₁₋₈-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl, -(C₁₋₆-alkyl)-aryl, heterocyclyl or -(C₁₋₆-alkyl)-heterocyclyl, or

-NR¹⁵R¹⁶ represents a heterocyclyl ring;

with the exception of the racemates of the following compounds:

N-(cyclopropyl-2-thienylmethyl)-4,5-dihydro-2-oxazoleamine;

N-(cyclopropyl-2-furanylmethyl)-4,5-dihydro-2-oxazoleamine;

1,2-di-2-furanyl-2-(phenylamino)-ethanone;

1,2-di-2-furanyl-2-[(4-methylphenyl)amino]-ethanone;

1,2-di-2-furanyl-2-(pyrazinylamino)-ethanone;

5-chloro-N-[cyclopropyl[5-(2-ethoxyethyl)-2-thienyl]methyl]-6-ethyl-4-pyridineamine;

5-chloro-N-[cyclopropyl[5-(2-ethoxyethyl)-2-thienyl]methyl]-6-methyl-4-pyridineamine;

N-(cyclopropyl-2-thienylmethyl)-3,4,5,6-tetrahydro-2-pyridineamine;

N-(cyclopropyl-2-thienylmethyl)-3,4,5,6-tetrahydro-2H-azepineamine;

and

N-(cyclopropyl-2-thienylmethyl)-3,4,5,6-tetrahydro-2-azocineamine.

2. The compound of claim 1, wherein said compound is in the form of a racemate.

3. The compound of claim 1, wherein said compound is in the form of a pure enantiomer or diastereoisomer.

4. The compound of claim 1, wherein said compound is in the form of a mixture of enantiomers or diastereoisomers.

5. The compound of claim 1, wherein

R^1 represents aryl or heterocyclyl;

R^2 represents $-(C=O)R^6$ or C_{3-6} -cycloalkyl;

R^3 , R^4 and R^5 each independently represent H, C_{1-6} -alkyl, $-(CH_2)_m-O-R^9$ wherein $m = 1$ or 2 , $-(CH_2)_p-S_q-(CH_2)_r-R^{10}$ wherein $p = 1$ or 2 , $q = 1$ and $r = 0, 1$ or 2 , $-(CH_2)_s-C(=O)OR^{11}$ wherein $s = 0, 1$ or 2 ;

R^6 represents aryl or heterocyclyl;

R^9 and R^{10} each independently represent H, C_{1-6} -alkyl or heterocyclyl; and

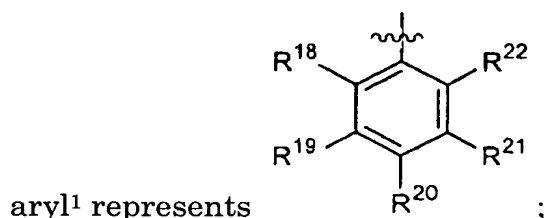
R^{11} represents H or C_{1-6} -alkyl.

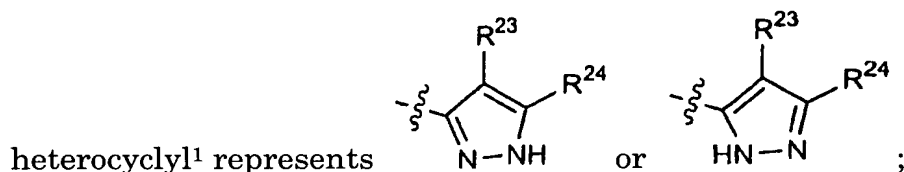
6. The compound of claim 1, wherein

R^1 represents aryl¹ or heterocyclyl¹;

R^2 represents $-(C=O)$ -phenyl or $-cyclo-C_3H_4R^{17}$;

R^3 , R^4 and R^5 each independently represent H, methyl, $-CH_2-OH$, $-CH_2-S-CH_3$ or $-CH_2-S-CH_2$ -furan-2-yl, $-C(=O)O$ methyl, $-C(=O)O$ ethyl, $-CH_2-C(=O)O$ ethyl;





R¹⁷ represents -C(=O)OH or -C(=O)O-C₁₋₆-alkyl; and

R¹⁸, R¹⁹, R²⁰, R²¹, R²², R²³ and R²⁴ each independently represent H, OH, SH, -O-C₁₋₆-alkyl, -Oaryl, -S-C₁₋₆-alkyl, -Saryl, F, Cl, Br, I, -CN, C₁₋₆-alkyl, CF₃, CO(=O)H, CO(=O)-C₁₋₆-alkyl or -N=N-aryl.

7. The compound of claim 6, wherein

R² represents -(C=O)-phenyl or -*cyclo*-C₃H₄-C(=O)Oethyl;

R³ represents H, methyl, -CH₂-S-CH₃, -CH₂-S-CH₂-furan-2-yl or -CH₂-C(=O)Oethyl;

R⁴ represents H, methyl, -CH₂-OH, -C(=O)Omethyl or -C(=O)Oethyl;

R⁵ represents H;

R¹⁸, R¹⁹, R²⁰, R²¹ and R²² each independently represent H, -Ophenyl, F, Cl, Br, -CN, methyl or CF₃, wherein at least three of the radicals R¹⁸, R¹⁹, R²⁰, R²¹ and R²² represent H; and

R²³ and R²⁴ each independently represent H, OH, -S-methyl, -CN, CO(=O)-ethyl or -N=N-phenyl.

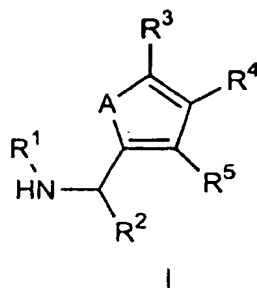
8. The compound of claim 1, wherein said compound is selected from the group consisting of:

5-[1-(2-chloro-phenylamino)-2-oxo-2-phenyl-ethyl]-2-methyl-furan-3-carboxylic acid ethyl ester;

5-[1-(4-chloro-2-methyl-phenylamino)-2-oxo-2-phenyl-ethyl]-2-methyl-furan-3-carboxylic acid methyl ester;

5-[1-(4-chloro-2-fluoro-phenylamino)-2-oxo-2-phenyl-ethyl]-2-methyl-furan-3-carboxylic acid methyl ester; and
 5-[1-(4-chloro-2-methyl-phenylamino)-2-oxo-2-phenyl-ethyl]-2-methyl-furan-3-carboxylic acid ethyl ester.

9. A process for preparing a compound corresponding to formula (I), or a pharmaceutically acceptable salt thereof,



wherein

A represents O or S;

R¹ represents aryl, heterocyclyl, -(C₁₋₆-alkyl)-aryl or -(C₁₋₆-alkyl)-heterocyclyl;

R² represents -C(=O)R⁶ or C₃₋₈-cycloalkyl;

R³, R⁴ and R⁵ each independently represent H, F, Cl, Br, I, CN, OR⁷, SR⁸, NO₂, C₁₋₁₂-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl, -(C₁₋₆-alkyl)-aryl, heterocyclyl, -(C₁₋₆-alkyl)-heterocyclyl, -(CH₂)_m-O-(CH₂)_n-R⁹ wherein m = 1, 2, 3 or 4 and n = 0, 1, 2, 3 or 4, -(CH₂)_p-S_q-(CH₂)_r-R¹⁰ wherein p = 1, 2, 3 or 4, q = 1 or 2 and r = 0, 1, 2, 3 or 4, -(CH₂)_s-C(=O)OR¹¹ wherein s = 0, 1, 2, 3 or 4, -C(=O)R¹² or -C(=S)R¹³;

R⁶ represents aryl, heterocyclyl, -(C₁₋₆-alkyl)-aryl or -(C₁₋₆-alkyl)-heterocyclyl;

R⁷ and R⁸ each independently represent H, C₁₋₆-alkyl or C₃₋₈-cycloalkyl;

R⁹ and R¹⁰ each independently represent H, C₁₋₆-alkyl, C₃₋₈-cycloalkyl, aryl, heterocyclyl or C(=O)R¹⁴;

R¹¹ represents H, C₁₋₆-alkyl or C₃₋₈-cycloalkyl;

R¹² and R¹³ each independently represent C₁₋₆-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl, -(C₁₋₆-alkyl)-aryl, heterocyclyl, -(C₁₋₆-alkyl)-heterocyclyl or -NR¹⁵R¹⁶;

R¹⁴ represents C₁₋₆-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl or -(C₁₋₆-alkyl)-aryl; and

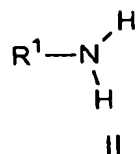
R¹⁵ and R¹⁶ each independently represent H, C₁₋₈-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl, -(C₁₋₆-alkyl)-aryl, heterocyclyl or -(C₁₋₆-alkyl)-heterocyclyl, or

-NR¹⁵R¹⁶ represents a heterocyclyl ring;

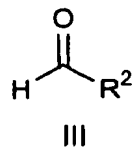
with the exception of the racemates of N-(cyclopropyl-2-thienylmethyl)-4,5-dihydro-2-oxazoleamine and N-(cyclopropyl-2-furanylmethyl)-4,5-dihydro-2-oxazoleamine;

said process comprising the step of

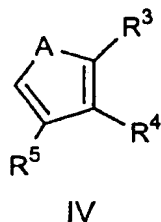
reacting an amine corresponding to formula (II)



with an aldehyde corresponding to formula (III)

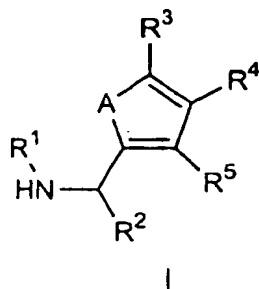


and with a heterocycle corresponding to formula (IV)



in the presence of an acid.

10. The process of claim 9, wherein the acid is trifluoroacetic acid.
11. The process of claim 9, wherein the step of reacting carried out in an organic solvent and at a temperature of from 0° to 100°C.
12. The process of claim 9, wherein said compound is in the form of a racemate.
13. The process of claim 9, wherein said compound is in the form of a pure enantiomer or diastereoisomer.
14. The process of claim 9, wherein said compound is in the form of a mixture of enantiomers or diastereoisomers.
15. A method of alleviating pain in a mammal, said method comprising administering to said mammal an effective pain alleviating amount of a compound corresponding to formula (I) or a pharmaceutically acceptable salt thereof



wherein

A represents O or S;

R¹ represents aryl, heterocyclyl, -(C₁₋₆-alkyl)-aryl or -(C₁₋₆-alkyl)-heterocyclyl;

R² represents -C(=O)R⁶ or C₃₋₈-cycloalkyl;

R³, R⁴ and R⁵ each independently represent H, F, Cl, Br, I, CN, OR⁷, SR⁸, NO₂, C₁₋₁₂-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl, -(C₁₋₆-alkyl)-aryl, heterocyclyl, -(C₁₋₆-alkyl)-heterocyclyl, -(CH₂)_m-O-(CH₂)_n-R⁹ wherein m = 1, 2, 3 or 4 and n = 0, 1, 2, 3 or 4, -(CH₂)_p-S_q-(CH₂)_r-R¹⁰ wherein p = 1, 2, 3 or 4, q = 1 or 2 and r = 0, 1, 2, 3 or 4, -(CH₂)_s-C(=O)OR¹¹ wherein s = 0, 1, 2, 3 or 4, -C(=O)R¹² or -C(=S)R¹³;

R⁶ represents aryl, heterocyclyl, -(C₁₋₆-alkyl)-aryl or -(C₁₋₆-alkyl)-heterocyclyl;

R⁷ and R⁸ each independently represent H, C₁₋₆-alkyl or C₃₋₈-cycloalkyl;

R⁹ and R¹⁰ each independently represent H, C₁₋₆-alkyl, C₃₋₈-cycloalkyl, aryl, heterocyclyl or C(=O)R¹⁴;

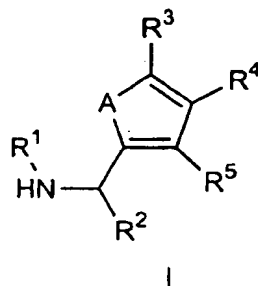
R¹¹ represents H, C₁₋₆-alkyl or C₃₋₈-cycloalkyl;

R¹² and R¹³ each independently represent C₁₋₆-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl, -(C₁₋₆-alkyl)-aryl, heterocyclyl, -(C₁₋₆-alkyl)-heterocyclyl or -NR¹⁵R¹⁶;

R¹⁴ represents C₁₋₆-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl or -(C₁₋₆-alkyl)-aryl; and

R^{15} and R^{16} each independently represent H, C_{1-8} -alkyl, C_{3-8} -cycloalkyl, $-(C_{1-6}$ -alkyl)- C_{3-8} -cycloalkyl, aryl, $-(C_{1-6}$ -alkyl)-aryl, heterocyclyl or $-(C_{1-6}$ -alkyl)-heterocyclyl, or $-NR^{15}R^{16}$ represents a heterocyclyl ring.

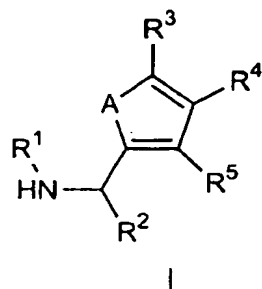
16. The method of claim 15, wherein said compound is in the form of a racemate.
17. The method of claim 15, wherein said compound is in the form of a pure enantiomer or diastereoisomer.
18. The method of claim 15, wherein said compound is in the form of a mixture of enantiomers or diastereoisomers.
19. A method of increasing vigilance or of treating or inhibiting a condition selected from the group consisting of pain, arrhythmia, nausea, cognitive deficit, cardiovascular disease, urinary incontinence, diarrhea, pruritis, inflammation, depression and substance abuse in a mammal, said method comprising administering to said mammal an effective amount of a compound corresponding to formula (I) or a pharmaceutically acceptable salt thereof



wherein

- A represents O or S;
- R¹ represents aryl, heterocyclyl, -(C₁₋₆-alkyl)-aryl or -(C₁₋₆-alkyl)-heterocyclyl;
- R² represents -C(=O)R⁶ or C₃₋₈-cycloalkyl;
- R³, R⁴ and R⁵ each independently represent H, F, Cl, Br, I, CN, OR⁷, SR⁸, NO₂, C₁₋₁₂-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl, -(C₁₋₆-alkyl)-aryl, heterocyclyl, -(C₁₋₆-alkyl)-heterocyclyl, -(CH₂)_m-O-(CH₂)_n-R⁹ wherein m = 1, 2, 3 or 4 and n = 0, 1, 2, 3 or 4, -(CH₂)_p-S_q-(CH₂)_r-R¹⁰ wherein p = 1, 2, 3 or 4, q = 1 or 2 and r = 0, 1, 2, 3 or 4, -(CH₂)_s-C(=O)OR¹¹ wherein s = 0, 1, 2, 3 or 4, -C(=O)R¹² or -C(=S)R¹³;
- R⁶ represents aryl, heterocyclyl, -(C₁₋₆-alkyl)-aryl or -(C₁₋₆-alkyl)-heterocyclyl;
- R⁷ and R⁸ each independently represent H, C₁₋₆-alkyl or C₃₋₈-cycloalkyl;
- R⁹ and R¹⁰ each independently represent H, C₁₋₆-alkyl, C₃₋₈-cycloalkyl, aryl, heterocyclyl or C(=O)R¹⁴;
- R¹¹ represents H, C₁₋₆-alkyl or C₃₋₈-cycloalkyl;
- R¹² and R¹³ each independently represent C₁₋₆-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl, -(C₁₋₆-alkyl)-aryl, heterocyclyl, -(C₁₋₆-alkyl)-heterocyclyl or -NR¹⁵R¹⁶;
- R¹⁴ represents C₁₋₆-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl or -(C₁₋₆-alkyl)-aryl; and
- R¹⁵ and R¹⁶ each independently represent H, C₁₋₈-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl, -(C₁₋₆-alkyl)-aryl, heterocyclyl or -(C₁₋₆-alkyl)-heterocyclyl, or -NR¹⁵R¹⁶ represents a heterocyclyl ring;
- with the exception of the racemates of N-(cyclopropyl-2-thienylmethyl)-4,5-dihydro-2-oxazoleamine and N-(cyclopropyl-2-furanylmethyl)-4,5-dihydro-2-oxazoleamine.

20. The method of claim 19, wherein said compound is in the form of a racemate.
21. The method of claim 19, wherein said compound is in the form of a pure enantiomer or diastereoisomer.
22. The method of claim 19, wherein said compound is in the form of a mixture of enantiomers or diastereoisomers.
23. A pharmaceutical composition comprising:
at least one compound corresponding to formula (I) or a pharmaceutically acceptable salt thereof



wherein

A represents O or S;

R¹ represents aryl, heterocyclyl, -(C₁₋₆-alkyl)-aryl or -(C₁₋₆-alkyl)-heterocyclyl;

R² represents -C(=O)R⁶ or C₃₋₈-cycloalkyl;

R³, R⁴ and R⁵ each independently represent H, F, Cl, Br, I, CN, OR⁷, SR⁸, NO₂, C₁₋₁₂-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₆-alkyl)-C₃₋₈-cycloalkyl, aryl, -(C₁₋₆-alkyl)-aryl, heterocyclyl, -(C₁₋₆-alkyl)-heterocyclyl, -(CH₂)_m-O-(CH₂)_n-R⁹ wherein m = 1, 2, 3 or 4 and n = 0, 1, 2, 3 or 4, -(CH₂)_p-S_q-(CH₂)_r-

R^{10} wherein $p = 1, 2, 3$ or 4 , $q = 1$ or 2 and $r = 0, 1, 2, 3$ or 4 , $-(CH_2)_s-$
 $C(=O)OR^{11}$ wherein $s = 0, 1, 2, 3$ or 4 , $-C(=O)R^{12}$ or $-C(=S)R^{13}$;
 R^6 represents aryl, heterocyclyl, $-(C_{1-6}\text{-alkyl})\text{-aryl}$ or $-(C_{1-6}\text{-alkyl})\text{-heterocyclyl}$;
 R^7 and R^8 each independently represent H, $C_{1-6}\text{-alkyl}$ or $C_{3-8}\text{-cycloalkyl}$;
 R^9 and R^{10} each independently represent H, $C_{1-6}\text{-alkyl}$, $C_{3-8}\text{-cycloalkyl}$, aryl, heterocyclyl or $C(=O)R^{14}$;
 R^{11} represents H, $C_{1-6}\text{-alkyl}$ or $C_{3-8}\text{-cycloalkyl}$;
 R^{12} and R^{13} each independently represent $C_{1-6}\text{-alkyl}$, $C_{3-8}\text{-cycloalkyl}$, $-(C_{1-6}\text{-alkyl})\text{-}C_{3-8}\text{-cycloalkyl}$, aryl, $-(C_{1-6}\text{-alkyl})\text{-aryl}$, heterocyclyl, $-(C_{1-6}\text{-alkyl})\text{-heterocyclyl}$ or $-NR^{15}R^{16}$;
 R^{14} represents $C_{1-6}\text{-alkyl}$, $C_{3-8}\text{-cycloalkyl}$, $-(C_{1-6}\text{-alkyl})\text{-}C_{3-8}\text{-cycloalkyl}$, aryl or $-(C_{1-6}\text{-alkyl})\text{-aryl}$; and
 R^{15} and R^{16} each independently represent H, $C_{1-8}\text{-alkyl}$, $C_{3-8}\text{-cycloalkyl}$, $-(C_{1-6}\text{-alkyl})\text{-}C_{3-8}\text{-cycloalkyl}$, aryl, $-(C_{1-6}\text{-alkyl})\text{-aryl}$, heterocyclyl or $-(C_{1-6}\text{-alkyl})\text{-heterocyclyl}$, or
 $-NR^{15}R^{16}$ represents a heterocyclyl ring;
with the exception of the racemates of the following compounds:
N-(cyclopropyl-2-thienylmethyl)-4,5-dihydro-2-oxazoleamine;
N-(cyclopropyl-2-furanylmethyl)-4,5-dihydro-2-oxazoleamine;
N-(cyclopropyl-2-thienylmethyl)-3,4,5,6-tetrahydro-2-pyridineamine;
N-(cyclopropyl-2-thienylmethyl)-3,4,5,6-tetrahydro-2H-azepineamine;
and
N-(cyclopropyl-2-thienylmethyl)-3,4,5,6-tetrahydro-2-azocineamine;
and at least one pharmaceutical excipient.

24. The pharmaceutical composition of claim 23, wherein said compound is in the form of a racemate.

25. The pharmaceutical composition of claim 23, wherein said compound is in the form of a pure enantiomer or diastereoisomer.
26. The pharmaceutical composition of claim 23, wherein said compound is in the form of a mixture of enantiomers or diastereoisomers.